KING COUNTY I/I REDUCTION PROJECTS SUMMARY OF BENEFIT COST RATIOS FOR I/I REDUCTION IMPROVEMENTS VS CONVEYANCE SYSTEM IMPROVEMENTS

Scenario	Basins	Total Non-Degraded I/I Reduction (mgd)	Total I/I Construction Cost (\$ Million)	Total I/I Project Cost (\$ Million)	I/I Reduction Assumptions	Description of Rehabilitation in Each Basin	CSI Affected Facility	Pre Reduction Size (MG)	CSI Pre Reduction Project Cost (\$ Million)	Post Reduction Size (MG)	CSI Post- Reduction Project Cost (\$ Million)	CSI Net Project Cost Savings (\$ Million)	Benefit/Cost Ratio					
	BEL031-D					82-Easy, 25-Medium and 75 - Difficult lateral and side sewer replacements out of 213 properties. 85.4% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.96	\$17.79							
BEL-FH	BEL032-E	1.19	\$4.67	\$7.15	75%	69 -Easy, 17-Medium lateral and side sewer replacements out of 223 properties. 38.6% of properties rehabilitated.	Issaquah Storage Heathfiled & Sunset Pump Station	1.77 53.24	\$14.06 \$46.77	1.25 53.26	\$10.04 \$46.79	\$7.31	1.02					
BEL-FL	BEL031-D	0.97	\$4.67	\$7.15	60%	82-Easy, 25-Medium and 75 - Difficult lateral and side sewer replacements out of 213 properties. 85.4% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.03	\$18.41	\$6.00	0.84					
DEL-1 E	BEL032-E	0.51	ψ4.07	Ψ7.13	30 70	69 -Easy, 17-Medium lateral and side sewer replacements out of 223 properties. 38.6% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.34	\$10.75	ψ0.00	0.04					
BEL-GH	BEL031-E	1.10	\$5.39	\$8.25	75%	82-Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.99	\$18.05	\$6.79	0.82					
DEE SIT	BEL032-D	1.10	ψ0.55	ψυ.Ζυ	1376	69 -Easy, 17-Medium and 105- Difficult lateral and side sewer replacements out of 223 properties. 85.7% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.28	\$10.32	φυ./ 9	0.02					
BEL-GL	BEL031-E	0.90	\$5.39	\$5.39	\$5.39	\$5.39	\$5.39	\$5.39	\$8.25	60%	82-Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.05	\$18.59	\$5.60	0.68
522 32	BEL032-D	0.00		\$0.20	30%	69 -Easy, 17-Medium and 105- Difficult lateral and side sewer replacements out of 223 properties. 85.7% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.37	\$10.97	·	0.00					
	BEL031-D		\$7.20		75%	82-Easy, 25-Medium and 75 - Difficult lateral and side sewer replacements out of 213 properties. 85.4% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.87	\$17.03							
BEL-HH	BEL032-D	1.47		\$11.02		69 -Easy, 17-Medium and 105-Difficult lateral and side sewer replacements out of 223 properties. 85.7% of properties rehabilitated.	Issaquah Storage Heathfiled & Sunset Pump Station	1.77 53.24	\$14.06 \$46.77	1.13 53.68	\$9.12 \$47.05	\$8.73	0.79					
	BEL031-D					82-Easy, 25-Medium and 75 - Difficult lateral and side sewer replacements out of 213 properties. 85.4% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.96	\$17.79							
BEL-HL	BEL032-D	1.19	\$7.20	\$11.02	60%	69 -Easy, 17-Medium and 105-Difficult lateral and side sewer	Issaquah Storage	1.77	\$14.06	1.25	\$10.04	\$7.31	0.66					
						replacements out of 223 properties. 85.7% of properties rehabilitated.	Heathfiled & Sunset Pump Station	53.24	\$46.77	53.68	\$46.79							
BEL-IH	BEL031-E	0.92	\$2.87	\$4.38	75%	82-Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.07	\$18.81	\$5.12	1.17					
	BEL032-E				7.070	69 -Easy, 17-Medium lateral and side sewer replacements out of 223 properties. 38.6% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.40	\$11.23	φυ. 12						
BEL-IL	BEL031-E	0.68	\$2.87	\$2.87	\$2.87	\$2.87	\$2.87	 \$2.87	\$4.38	60%	82-Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.12	\$19.20	\$4.27	0.97
	BEL032-E					69 -Easy, 17-Medium lateral and side sewer replacements out of 223 properties. 38.6% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.46	\$11.69							

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BEL-JH	BEL031-D	0.95	\$3.40	\$5.20	75%	82-Easy, 25-Medium and 75 - Difficult lateral and side sewer	Eastgate Storage	2.33	\$21.10	2.03	\$18.45	\$5.89	1.13
DLE-011	BE2001-B	0.33	ψ5.40	ψ0.20	7370	replacements out of 213 properties. 85.4% of properties rehabilitated. Issaqu	Issaquah Storage	1.77	\$14.06	1.35	\$10.82	\$ 3.69	
BEL-JL	BEL031-D	0.77	\$3.40	\$5.20	60%	82-Easy, 25-Medium and 75 - Difficult lateral and side sewer replacements out of 213 properties. 85.4% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.09	\$18.94	\$4.82	0.93
						Issaqual	Issaquah Storage	1.77	\$14.06	1.42	\$11.40		
BEL-KH	BEL031-E	0.58	\$1.59	\$2.44	75%	82-Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.15	\$19.47	\$3.66	1.50
				·			Issaquah Storage	1.77	\$14.06	1.51	\$12.03	·	
BEL-KL	BEL031-E	0.48	\$1.59	\$2.44	60%	82-Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.18	\$19.75	\$3.03	1.24
	D22001 2	0.10	Ψ1.50	Ψ2.11	3070		Issaquah Storage	1.77	\$14.06	1.55	\$12.38	\$3.00	
BEL-LH	BEL032-D	0.52	\$3.80	\$5.81	75%	69 -Easy, 17-Medium and 105-Difficult lateral and side sewer replacements out of 223 properties. 85.7% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.17	\$19.63	\$3.29	0.57
DEC-EI1	BE2002-B	0.02	ψ5.50	ΨΟ.ΟΤ	7370		Issaquah Storage	1.77	\$14.06	1.53	\$12.24	ψ0.23	0.37
BEL-LL	BEL032-D	0.42	\$3.80	\$5.81	81 60% 69 -Easy, 17-N	69 -Easy, 17-Medium and 105-Difficult lateral and side sewer	Eastgate Storage	2.33	\$21.10	2.20	\$19.92	\$2.65	0.46
DLL-LL	DEE032-D	0.42	ψ5.50	ψ0.01	00 70	replacements out of 223 properties. 85.7% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.58	\$12.59		0.40
BEL-MH	BEL032-E	0.24	\$1.27	\$1.94	75%	69 -Easy, 17-Medium lateral and side sewer replacements out of 223	Eastgate Storage	2.33	\$21.10	2.27	\$20.43	\$ 1.52	0.78
DEC-IVII I	BELU32-E	0.24	Ψ1.27	φ1.94	73%	properties. 38.6% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.68	\$13.21	\$1.52	0.78
						69 -Easy, 17-Medium lateral and side sewer replacements out of 223	Eastgate Storage	2.33	\$21.10	1.91	\$20.53		
BEL-ML	BEL032-E	0.20	\$1.27	\$1.94	60%	properties. 38.6% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.18	\$13.36	\$1.27	0.65
	BEL011-D					78 -Easy, 89-Medium and 53-Difficult lateral and side sewer replacements out of 259 properties. 84.9% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.95	\$17.75		
BEL-RH		1.21	\$7.89	\$12.07	75%		Issaquah Storage	1.77	\$14.06	1.24	\$9.97	\$7.40	0.61
	BEL012-E						Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.81		
BEL-RL	BEL011-D	- 0.97	\$7.89	\$12.07	60%	78 -Easy, 89-Medium and 53-Difficult lateral and side sewer replacements out of 259 properties. 84.9% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.03	\$18.41	0 0.00	0.50
BEL-KL	BEL012-E	0.97	60.1¢	\$12.07	00%	71 -Easy, 172-Medium lateral and side sewer replacements out of 441 properties. 55.1% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.34	\$10.75	\$6.00	0.50

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	BEL011-E					78 -Easy, 89-Medium lateral and side sewer replacements out of 259 properties. 64.5% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.89	\$17.19											
BEL-SH	BEL012-D	1.41	\$9.79	\$14.98	75%	71 -Easy, 172-Medium and 132-Difficult lateral and side sewer replacements out of 441 properties. 85.0% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.15	\$9.32	\$8.42	0.56									
	BELUIZ-D						Heathfiled & Sunset Pump Station	53.24	\$46.77	53.58	\$47.00											
BEL-SL	BEL011-E	1.14	\$9.79	\$14.98	60%	78 -Easy, 89-Medium lateral and side sewer replacements out of 259 properties. 64.5% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.98	\$17.94	\$7.03	0.47									
522 02	BEL012-D		ψο σ	V 11100	30%	71 -Easy, 172-Medium and 132-Difficult lateral and side sewer replacements out of 441 properties. 85.0% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.27	\$10.19	Φ1.U3	0.47									
	BEL011-D														78 -Easy, 89-Medium and 53-Difficult lateral and side sewer replacements out of 259 properties. 84.9% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.85	\$16.84		
BEL-TH	BEL012-D	1.54	\$11.07	\$16.93	75%	71 -Easy, 172-Medium and 132-Difficult lateral and side sewer	Issaquah Storage	1.77	\$14.06	1.1	\$8.89	\$9.08	0.54									
						replacements out of 441 properties. 85.0% of properties rehabilitated.	Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$47.12											
	BEL011-D					78 -Easy, 89-Medium and 53-Difficult lateral and side sewer replacements out of 259 properties. 84.9% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.94	\$17.66											
BEL-TL	BEL012-D	1.24	\$11.07	\$16.93	60%	71 -Easy, 172-Medium and 132-Difficult lateral and side sewer	Issaquah Storage	1.77	\$14.06	1.23	\$9.87	\$7.57	0.45									
						replacements out of 441 properties. 85.0% of properties rehabilitated.	Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.83											
BEL-UH	BEL011-E	1.08	\$6.61	\$10.11	75%	78 -Easy, 89-Medium lateral and side sewer replacements out of 259 properties. 64.5% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	1.99	\$18.09	\$6.68	0.66									
BEE 011	BEL012-E	1.00	φο.σ ι	\$1U.TT		71 -Easy, 172-Medium lateral and side sewer replacements out of 441 properties. 55.1% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.29	\$10.39	80.04	0.00									
DEL LI	BEL011-E	0.07	# 0.04	040.44	000/	78 -Easy, 89-Medium lateral and side sewer replacements out of 259 properties. 64.5% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.06	\$18.68	ФБ 40	0.50									
BEL-UL	BEL012-E	0.87	\$6.61	\$10.11	60%	71 -Easy, 172-Medium lateral and side sewer replacements out of 441 properties. 55.1% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.38	\$11.08	\$5.40	0.53									

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BEL-VH	PEI 011 D	0.57	¢2.02	\$5.00	759/	78 -Easy, 89-Medium and 53-Difficult lateral and side sewer	Eastgate Storage	2.33	\$21.10	2.15	\$19.50	Φ2 E0	0.60												
BEL-VH	BEL011-D	0.57	\$3.92	\$5.99	75%	replacements out of 259 properties. 84.9% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.51	\$12.07	\$3.59	0.60												
BEL-VL	BEL011-D	0.46	\$3.92	\$5.99	60%	78 -Easy, 89-Medium and 53-Difficult lateral and side sewer	Eastgate Storage	2.33	\$21.10	2.19	\$19.80	\$2.92	0.49												
						replacements out of 259 properties. 84.9% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.56	\$12.44														
BEL-WH	BEL011-E	0.44	\$2.64	\$4.04	75%	78 -Easy, 89-Medium lateral and side sewer replacements out of 259 properties. 64.5% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.19	\$19.86	\$2.79	0.69												
			V	•			Issaquah Storage	1.77	\$14.06	1.57	\$12.51	¥													
BEL-WL	BEL011-E	0.36	\$2.64	\$2 64	\$2 64	\$2 64	\$2 64	\$2 64	\$2 64	\$2 64	\$2 64	\$2.64	\$2.64	\$2.64	\$2 64	\$4.04	60%	78 -Easy, 89-Medium lateral and side sewer replacements out of 259	Eastgate Storage	2.33	\$21.10	2.22	\$20.08	\$2.30	0.57
	2232	0.00	V =10 .	V		properties. 64.5% of properties rehabilitated. Is	Issaquah Storage	1.77	\$14.06	1.6	\$12.78	4 =100	0.0.												
BEL-XH	BEL012-D	0.97	\$7.15	\$10.94	75%	71 -Easy, 172-Medium and 132-Difficult lateral and side sewer replacements out of 441 properties. 85.0% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.03	\$18.41	\$6.00	0.55												
							Issaquah Storage	1.77	\$14.06	1.34	\$10.75														
BEL-XL	BEL012-D	0.78	\$7.15	\$10.94	60%	71 -Easy, 172-Medium and 132-Difficult lateral and side sewer replacements out of 441 properties. 85.0% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.09	\$18.91	\$4.89	0.45												
							Issaquah Storage	1.77	\$14.06	1.42	\$11.36														
BEL-YH	BEL012-E	0.64	\$3.97	\$6.08	75%	71 -Easy, 172-Medium lateral and side sewer replacements out of 441 properties. 55.1% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.13	\$19.30	\$4.04	0.66												
							Issaquah Storage	1.77	\$14.06	1.48	\$11.82														
BEL-YL	BEL012-E	0.51	\$3.97	\$6.08	60%	71 -Easy, 172-Medium lateral and side sewer replacements out of 441	Eastgate Storage	2.33	\$21.10	2.17	\$19.66	\$3.22	0.53												
DEL-12	DELO12-E	0.51	ψ3.37	ψ0.00	0070	properties. 55.1% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.54	\$12.28	ψ0.22	0.33												
							Eastgate Storage	2.33	\$21.10	2.18	\$19.77														
100 511	100 0000 (0)	0.54	#0.00	# 0.40	750/	31 -Easy, 76-Medium and 11-Difficult lateral and side sewer	Issaquah Storage	1.77	\$14.06	1.55	\$12.39	00.70	4.40												
ISS - EH	ISS 003C (2)	0.51	\$2.08	\$3.19	75%	replacements out of 133 properties. 93.2% of properties rehabilitated.	Issaquah Interceptor	1.72	\$3.04	1.07	\$2.93	\$3.78	1.18												
							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.10														
							Eastgate Storage	2.33	\$21.10	2.21	\$20.02														
ISS - EL	ISS 003C (2)	0.40	\$2.08	\$3.19	60%	31 -Easy, 76-Medium and 11-Difficult lateral and side sewer replacements out of 133 properties. 93.2% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.59	\$12.72	\$2.96	0.93												

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							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.23		
							Eastgate Storage	2.33	\$21.10	2.20	\$19.89		
ISS - FH	ISS 003D(2)	0.46	\$1.82	\$2.79	75%	37 -Easy, 76-Medium lateral and side sewer replacements out of 133	Issaquah Storage	1.77	\$14.06	1.57	\$12.55	\$3.43	1.23
100 111	100 0000(2)	0.40	Ψ1.52	Ψ2.7 Θ	7370	properties. 85.0% of properties rehabilitated.	Issaquah Interceptor	1.72	\$3.04	1.13	\$2.93	ψ0.40	1.20
							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.17		
							Eastgate Storage	2.33	\$21.10	2.22	\$20.13		
ISS - FL	ISS 003D(2)	0.37	\$1.82	\$2.79	60%	37 -Easy, 76-Medium lateral and side sewer replacements out of 133 properties. 85.0% of properties rehabilitated.	Issaquah Storage	1.77	\$14.06	1.61	\$12.85	\$2.66	0.96
							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.29		
						37 -Easy lateral and side sewer replacements out of 133 properties. 27.9% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.29	\$20.70		
ISS - GH	ISS 003E(2)	0.15	\$0.53	\$0.81	75%		Issaquah Storage	1.77	\$14.06	1.71	\$13.56	\$1.10	1.36
							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.57		
	ISS 003E(2)					37 -Easy lateral and side sewer replacements out of 133 properties. 27.9% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.30	\$20.78		
ISS - GL		0.12	\$0.53	\$0.81	60%		Issaquah Storage	1.77	\$14.06	1.72	\$13.67	\$0.87	1.08
							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.61		
	BEL 031E					82 -Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.01	\$18.29		
BEL/ISS - BH		1.04	\$3.41	\$5.23	75%		Issaquah Storage	1.77	\$14.06	1.32	\$10.61	\$6.97	1.33
	ISS 003 D(2)					37-Easy, 76-Medium lateral and side sewer replacements out of 133 properties. 85.0% of properties rehabilitated.	Issaquah Interceptor	1.72	\$3.04	1.13	\$2.93		
							Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.17		
	BEL 031E	<u> </u>				82 -Easy, 25-Medium lateral and side sewer replacements out of 213 properties. 50.2% of properties rehabilitated.	Eastgate Storage	2.33	\$21.10	2.07	\$18.81		
BEL/ISS - BL	ISS 003 D(2)	0.85	\$3.41	\$5.23	60%	37-Easy, 76-Medium lateral and side sewer replacements out of 133	Issaquah Storage	1.77	\$14.06	1.4	\$11.23	\$5.60	1.07
	, ,					properties. 85.0% of properties rehabilitated.	Heathfiled & Sunset Pump Station	53.24	\$46.77	53.30	\$46.29		
BLS-CH	BLS003B	1.92	\$2.63	\$4.02	75%	250-Easy lateral and side sewer replacements out of 386 properties. 65.0% of properties rehabilitated.	Bryn Mawr Storage	0.08	\$3.35	0.00	\$0.00	\$3.35	0.83
BLS-CL	BLS003B	1.55	\$2.63	\$4.02	60%	250-Easy lateral and side sewer replacements out of 386 properties. 65.0% of properties rehabilitated.	Bryn Mawr Storage	0.08	\$3.35	0.01	\$2.57	\$0.78	0.19